

DRAFT
Positive Train Control (PTC) Working Group
Data & Implementation Task Force Meeting
April 26, 1999
Kansas City, Missouri

April 26: Data & Implementation Task Force Meeting convened at 1:00 p.m.

- Dean Hollingsworth opened the meeting with a Safety Briefing.
- Ted Bundy asked the task force for comments on the March minutes. There were no comments and the task force voted to accept the minutes as stand.
- Ted Bundy briefly discussed the agenda for the next three days.
- Bob Dorer reported on the compilation of the Report to Congress by the Volpe Center. They accepted all the edits that Howard Moody had collected. Volpe started with the clean Version #1 and did an editorial version of the report for commas, punctuation, etc. Version #2 has the comments received (Wilson, Stotts, DePaepe, Inclima & Cothen) and these comments show up in the document. Double brackets are the proposed comments or suggestions. Comments were also inserted verbatim in a temporary appendix at the end of the document.
- Grady Cothen briefed the task force on the Executive Summary and asked the task force members for comments. Bill Clifford questioned the last sentence of the first paragraph which reads, "Further, railroads believe that they have identified means of enhancing the efficiency of their operations and the quality of their service without the necessity of deployment PTC systems, as such. Mr. Cothen asked the task force to try to offer replacement to items in the Executive Summary that are neutral in nature. Mr. Cothen suggested that the the task force come back to him after the caucuses, with the detailed comments.
- Tim DePaepe discussed his concerns from the previous meeting, such as the way things were titled. These concerns were emailed to Bob Dorer, Ted Bundy, Jim Stem, Chuck Dettmann and Grady Cothen and are addressed in the report. Mr. DePaepe reported for Rick Inclima, who could not be at this meeting, and addressed Mr. Inclima's concerns with the term "other on track equipment" throughout the document. Bob Dorer indicated that a footnote on page 14 addressed Mr. Inclima's concern.
- Gerhard Thelen's concerns were briefly discussed with the task force. Mr. Thelen stated that the concerns raised were tabled and after resolution, the task force voted on the issues. He did not want to leave the impression that there was dissension on anything that was stated in the report.
- Howard Moody stated that the report is a consensus document so far. Most of what is in the report, the entire task force has agreed to.
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- Nick Marsh was concerned that before the caucus, he wanted to know the results of the

CRAM and the information on the Economics Report which is missing in the Report to Congress. He said the caucuses would have a difficult time completing their deliberations without this information.

Sherry Borener gave an update on the latest CRAM report and a copy of the report was made available to each of the caucus groups, but the economic team had to meet before they could brief the task force.

The meeting adjourned at 3:15 p.m. for separate group (Management, Labor and FRA) caucuses.

April 27: Data & Implementation Task Force Meeting convened at 8 a.m.

Dean Hollingsworth asked the caucus groups where they were in their review of the Report to Congress. FRA reported that they are ready. Management reported that they need several hours this morning to complete their review. Labor reported that they have a type written list of their issues.

The following teams were formed to address concerns and complete sections of the report.

CRAM Team: Sherry Borener, Howard Moody, Tim DePaepe, Fran Hooper, Gary Pruitt

Economics Team: Frank Roskind, Tim DePaepe, Bill Clifford

Comparison of PTC Projects: Dick Stotts, Doug Horstman, Dick Kimball

Executive Summary: Grady Cothen, Chuck Dettmann, James Stem

The remaining members of the Data & Implementation Task Force, not serving on one of the above teams, continued with review and performing editorial changes on other sections of the report. This group reached agreement on all sections of the report that were not assigned to specific teams, and also agreed that the "Suggested Glossary", inserted by the Volpe editor (a lay person not familiar with the terms), should stay, and the definitions from the PTC Working Group DRAFT Glossary, be added to these terms.

The meeting reconvened at 6 p.m. to discuss the inclusion of the team reports.

The Report to Congress revisions were discussed at length.

The task force will re-convene tomorrow, after the full working group meeting, for continuation and reviewing the edits.

The meeting adjourned at 7:30 p.m.

Editor's Note: The minutes of the full PTC Working Group Meeting of April 28 have been moved to the end of these minutes for reader convenience.

April 28: Data & Implementation Task Force Meeting convened at 10:30 a.m.

- Dr. Borener distributed the CRAM II report and asked the task force to briefly review the new document before discussion. Dr. Borener pointed out the edits or changes the CRAM team made in this report. She asked the task force for suggestions for the Results section of the report. Grady commented that the section is sufficient and in the next phase (meeting in Newark) we will expand on the Results of the CRAM II. Nick Marsh made the comment that he thought that the Results needed to be in Version #3 of the Report to Congress, and that we would trust Dr. Borener's write-up which would expand on this section. Grady indicated that when this report is completed by Dr. Borener, FRA will send an email that the report is available on the Volpe's website. Nick Marsh said that it would be difficult to accept this section of the report without the results. Mr. Cothen asked Dr. Borener if she could run the data in a timely manner and report to the task force via the Volpe web site (<http://204.166.190.40> - password: rsac, user id: rsac). Dr. Borener said that she could, and Mr. Cothen agreed to have Volpe accomplish this.
- Frank Roskind distributed the Economics Report and brief the task force on the changes. He reported that most of the report has not changed, the only changes are to Pages 7 through 10. The tables on pages 8-9-10 have been modified. The significant changes are the WIU's (Wayside Interface Units), how many and where they are. Larry Milhon indicated that the team used the ITCS Model for Level 3. Bob Heggestad noted that the reference to \$27,000 per locomotive unit at the bottom of page 17 was incorrect, that it should be \$17,000. Roskind agreed this was in error and that he would correct it.
- Grady Cothen discussed the document entitled "Scope of Work (or Needs Statement) for a Human Factors Team". He advised that the Standards Task Force had accepted the scope of work and asked that the Data & Implementation Task Force also accept. The three issues are the Composition of the Team, the Interaction with the ASCAP and the Interaction with Operating Rules Team. The Data & Implementation Task Force will review within the next week and report to the designees for their group, for acceptance. Railroad management members will report through Chuck Dettmann, labor members through Tim DePaepe.
- Dick Stotts reported on the Draft-Appendix C: Compendium Matrix of Current Positive Train Control Projects. On pages 2-4-5 there is highlighted text which shows the changes. The changes are to the previous sections which stated that the PTC systems meet the hurdle of FRA's acceptance. There are additional minor changes to be made based on information received from CSX. These changes will be made before the matrix is disseminated to members with the next version of the Progress Report to the Congress.

The meeting adjourned at 12 Noon.

April 28: Positive Train Control Working Group Meeting convened at 8 a.m.

- Dean Hollingsworth opened the full Positive Train Control Working Group with a safety briefing.
- Grady Cothen addressed the group with the business task before us today. Grady mentioned to the group that the Data & Implementation Task Force did not complete the review of the Report to Congress and would continue after this meeting adjourns. Therefore, there will be no complete status

report from the Data & Implementation Task Force.

- Ted Bundy reported to the group on the progress to date of the Data & Implementation Task Force. The group is continuing, as they have for the past couple of months, with the completion of the Report to Congress. This report is a progress report to date of the Positive Train Control system.
- Manual Galdo reported to the group on the progress of the Standards Task Force. The Task Force was tasked with revision of Part 236; it was then decided not to make modifications to Part 236 directly but to start with a new subpart (Subpart H). Subpart H is based on performance standards, as opposed to prescriptive standards of current Part 236.

This decision was due to the complexity of the new technology, which could not be easily accommodated by prescriptive standards. A team was formed to help Dr. Ted Giras of the University of Virginia (UVA), with the Axiomatic Safety Critical Assessment Process (ASCAP). The team is developing two documents. The first is the Master Document which contains the newly developed standards based regulatory language. The second document, called the Issues Document, contains group concerns and issues that have not been resolved. The Issues Document identifies a person charged with resolving the issue, and a deadline for resolution.

The Human Factors Team was formed, with Dr. Raslear of FRA's Office of Research & Development as the Chairman. The team deals with the issues of maintenance of operator skills vis-a-vis, automation, person machine interface issues, etc. The team will provide inputs to the ASCAP team. The ASCAP team is also producing a hazards list for a model being developed by the UVA. The May 1999 meeting is in Pueblo, Colorado, and will include a demonstration on the Amtrak ACSES system.

- Grady Cothen asked the group for their comments and concerns. Fran Hooper was concerned with the term that the Standards Task Force is using, entitled the Railroad Safety Program Plan, and there may be some confusion with the term that the commuter railroads use, which is entitled the Systems Safety Plan. Mr. Cothen stated that the two have separate names and hopefully will not confuse anyone.

Mr. Cothen also advised that the Task Force needs to document issues, the milestones and deliverables required of these issues that arise. The agency needs these inputs in a specific time frame. We need to conclude the phases that we are in right now. The Report to Congress is a progress report and not a final report. The Administrator made that request to the full Railroad Safety Advisory Committee (RSAC). Mr. Cothen and Mr. Gavalla have also formally requested that we move forward. We need to see a growth in mutual trust and confidence in our activity. The FRA is involved in the implementation of regulations concerning Passenger Safety Standards. Also, the agency is working on a proposed law on Whistle Banning.

The task forces will complete progress reports of the projects to date. One is the CRAM II. Both task forces are to have members join with the ASCAP team, to determine the signal and train control functions that are meaningful and that provide safety in the railroad environment. We need improved input data for Dr. Giras and we need to be able to determine the incremental value of these functions.

- Dr. Giras commented on the ASCAP model formulation, which has a minimum number of assumptions. When the ASCAP Team was formed they made the assumptions that the ASCAP model would

not predetermine the outcome. There are three parts of the model which are: the metric; the methodology; and the verification and validation of the model. Dr. Giras spoke on the proposed RSAC quantification of safety risk-oriented metric. It is proposed that a risk-oriented metric be considered for inclusion in the RSAC Standards rule-making language. The risk-oriented metric is illustrated as: Risk = Severity x Likelihood of Occurrence of a Unsafe Event where severity is a scale factor which is defined as catastrophic, critical, marginal and hazardous. One of the University of Virginia's goals is that the model will look like the railroad system.

Mr. Cothen made a request for help from the group with the issue of standards for high-speed rail, which is speeds in excess of 79 mph. Not only high-speed passenger service but high-speed freight service. The agency (FRA) is charged by Congress to high-speed corridors around the country defining the requirement as to what systems will be needed for high-speed rail. The agency has new regulations on track safety standards and the passenger equipment safety standards will be published very shortly.

Joe Mattingly reported on the issue of high-speed rail in relation to the Standards Task Force. The tools are now in place and let the standards, as to way they are written, to go in this direction. No overwhelming task and the task force is flexible enough to take that into consideration.

Gerhard Thelen asked Mr. Cothen to elaborate on high-speed freight service. Grady responded that FRA had heard that there might be a need for high speed service for high value commodities, but that if the railroad industry didn't perceive such a need, then FRA would certainly not have any corresponding safety concerns in this area.

Chuck Dettmann stated that the full RSAC charged the two task forces (Standards & Data and Implementation) with the issue of PTC. Is the issue of high-speed rail something that needs to go back to the full RSAC? The full RSAC group needs to fully understand the resource demands of the individuals involved in the two task forces. The issue of high-speed rail will place further demands on all involved.

Grady Cothen responded that FRA had reviewed the task statements and were of the opinion that they were constructed in a manner that would permit assignment of this task without waiting until the next meeting of the full RSAC for discussion. Mr. Dettmann said that he wasn't taking exception to this assignment, but that the RSAC members needed to be advised that this liberal construction of the task statements would result in additional resource needs from the various organizations. Mr. Cothen agreed that FRA would advise the full RSAC of this resource need.

Mr. Cothen described the outline (listed below) of the finalization of the Report to Congress.

Report Finalization

1. FRA/Volpe incorporate agreed upon changes and correct errors (editorial)
2. Circulate to task force.
 - Consensus
 - Consensus w/comments
 - Non-consensus with specific comments

- Non-consensus

3. Circulate to full working group

- Consensus

- Non-consensus

The PTC Working Group meeting adjourned at 10 a.m.

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